19” LED Tube Controller

ORDERCODE 41003

Version 6.0

SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!
You have bought a great, innovative product from Showtec.
The Showtec 19” LED Tube Controller brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated DMX show, this product provides the effect you need.

You can rely on Showtec, for more excellent lighting products.
We design and manufacture professional light equipment for the entertainment industry.
New products are being launched regularly. We work hard to keep you, our customer, satisfied.
For more information: iwant@showtec.info

You can get some of the best quality, best priced products on the market from Showtec.
So next time, turn to Showtec for more great lighting equipment.
Always get the best -- with Showtec !

Thank you!

Showtec 19“ LED Tube Controller™ Product Guide

Warning..... 2
Safety-instructions..... 2
Operating Determinations..... 3

Description..... 4
Features..... 4
Overview..... 4
Backside..... 4

Installation..... 5

Set Up and Operation..... 5
Stand-alone..... 5
DMX-controlled..... 8

Set Up Example..... 9

Maintenance..... 10

Troubleshooting..... 10

Product Specifications..... 11

WARNING

CAUTION!
Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!

FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual

CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!

Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never look directly into the light source.
- Never leave any cables lying around.
- Do not open the device and do not modify the device.
- Do not connect this device to a dimmerpack.
- Do not switch the device on and off in short intervals, as this would reduce the system's life.
- Only use device indoor, avoid contact with water or other liquids.
- Avoid flames and do not put close to flammable liquids or gases.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the device and the power-cord from time to time.
- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.

- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Showtec device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- For replacement use fuses of same type and rating only.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

CAUTION ! EYEDAMAGES !.
Avoid looking directly into the light source.
(meant especially for epileptics) !

OPERATING DETERMINATIONS

If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.

Any other operation may lead to dangers like short-circuit, burns, electric shock, lamp explosion, crash etc. You endanger your own safety and the safety of others!

Improper installation can cause serious damage to people and property !

Rigging

Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself !
Always let the installation be carried out by an authorized dealer !

Procedure:

- If a LED tube is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Mount the LED tube to the trussing system.
- The LED tube must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety-cable.
- When rigging, derigging or servicing the LED tube, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.

Improper installation can cause serious damage to people and property !

Description of the device

Features

The 19” LED Tube Controller is designed for the more demanding user:

- 5 DMX Channels
- Controllable DMX or Stand-alone controller.
- 1 Output (1000 Tubes can be controlled)
- DMX IN and DMX OUT.

Overview

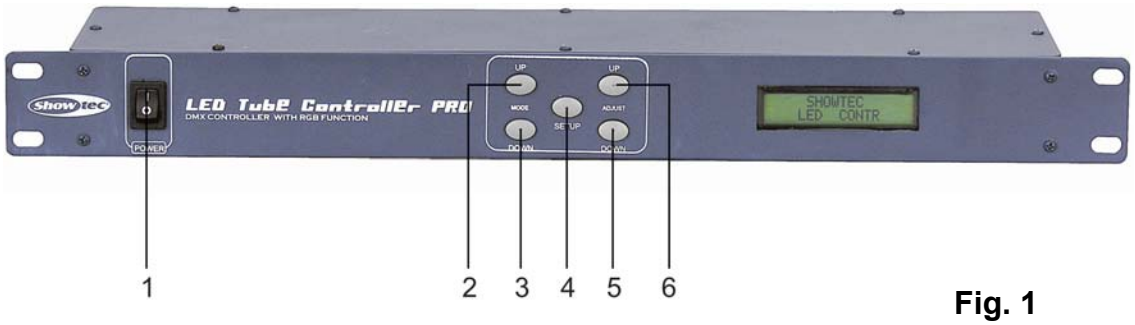


Fig. 1

1) ON / OFF
2) Mode Up: Change the pre-programmed modes.
3) Mode Down: Change the pre-programmed modes.
4) Set Up: Change the settings of the pre-programmed modes (Speed, Flash, Colors)
5) Adjust Down: Decrease the DMX address or program options.
6) Adjust Up: Increase the DMX address or program options.

Backside

Fig. 2

7) 3 pin DMX OUT connector: XLR female socket used to send DMX signals.
8) 3 pin DMX IN connector: XLR male socket used to receive DMX signals.
9) Output to LED Tube
10) Power 12V DC

Installation

Remove all packing materials from the LED Tube Controller. Check that all foam and plastic padding is removed. Connect all cables.

Power supply and Signal connection

The first LED Tube is directly connected to the power source. A LED PSU (ordercode 41001) should be connected between every 8 tubes.
Note: It’s necessary to insert a XLR termination plug (with 120 Ohm) in the last fixture in order to ensure proper transmission on the DMX data link.
Do not supply power before the whole system is set up and connected properly.
Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

Set Up and Operation

Follow the directions below, as they pertain to your preferred operation mode.
Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

You can operate this device as:
1. Stand-alone unit
2. DMX-controllable

After completing your settings, be sure to unplug the tubes, the controller and the PSU, otherwise errors could occur.
This way you reset the entire system, but your settings keep stored in the memory of the controller.

Stand-alone

1. Turn the power switch on. The device will start test-mode.
2. Press MODE button to enter mode setting.
3. Switch to System Mode, then press the Set Up-button.
4. Enter the amount of tubes you are using.
5. For **Stand-alone** you have to use **DMX Channel: 0**, then press the Set Up-button again.
6. The LCD now shows “Set Address YES”; press SETUP-Button (=NO) to keep your previous settings, or YES (=Right Up-Button) to store your choice. The LED Tubes will light up.
7. Now your unit is a stand-alone. You will find all the pre-programmed scenes below.

SYSTEM MODE ⇒ Press the Setup Button ⇒ **START ADDRESS: 1** ⇒You can change your settings by using the right Up/Down button.

⇒ Press the Setup Button ⇒ **SET ADDRESS: YES** ⇒ NO= SETUP-button; YES = Right UP-Button and the tubes light up.

⇒ Press the Setup Button ⇒ **TUBE AMOUNT: 1** ⇒You can change your settings by using the right Up/Down button.

⇒ Press the Setup Button ⇒ **DMX CHANNEL: 0** ⇒You can change your settings by using the right Up/Down button.

After completing your settings, be sure to unplug the tubes, the controller and the PSU, otherwise errors could occur.
This way you reset the entire system, but your settings keep stored in the memory of the controller.

Menu

1. Black-out
2. Static RED
3. Static GREEN
4. Static YELLOW
5. Static BLUE
6. Static PURPLE
7. Static CYAN
8. Static WHITE
9. Color Change Function Set
10. Slow Flow 1 Function Set
11. Slow Flow 2 Function Set
12. Roll Chase 1 Function Set
13. Roll Chase 2 Function Set
14. Multi Color Function Set
15. Fast Flow 1 Function Set
16. Fast Flow 2 Function Set
17. 2 Color Chase Function Set
18. 2 Color Flow Function Set
19. Color Fade Function Set
20. Auto Run Function Set
21. System Mode Function Set

When “Function Set” appears in the LCD, then you are able to make some extra settings: Run Speed, Flash Freq, etc.

9. Color Change	Function Set :	Run Speed 0-100 (1X Set Up) Flash Freq 0-100 (2X Set Up)
	Mode :	Return to the Mode Menu
10. Slow Flow 1	Function Set :	Run Speed 0-100 (1X Set Up) Flash Freq 0-100 (2X Set Up)
	Mode :	Return to the Mode Menu
11. Slow Flow 2	Function Set :	Run Speed 0-100 (1X Set Up) Flash Freq 0-100 (2X Set Up)
	Mode :	Return to the Mode Menu
12. Roll Chase 1	Function Set :	Run Speed 0-100 (1X Set Up) Flash Freq 0-100 (2X Set Up)
	Mode :	Return to the Mode Menu
13. Roll Chase 2	Function Set :	Run Speed 0-100 (1X Set Up) Flash Freq 0-100 (2X Set Up)
	Mode :	Return to the Mode Menu
14. Multi Color	Function Set :	Run Speed 0-100 (1X Set Up) Flash Freq 0-100 (2X Set Up)
	Mode :	Return to the Mode Menu
15. Fast Flow 1	Function Set :	Run Speed 0-100 (1X Set Up) Flash Freq 0-100 (2X Set Up)
	Mode :	Return to the Mode Menu
16. Fast Flow 2	Function Set :	Run Speed 0-100 (1X Set Up) Flash Freq 0-100 (2X Set Up)
	Mode :	Return to the Mode Menu

17. 2 Color Chase	Function Set :	Run Speed 0-100 (1X Set Up) Flash Freq 0-100 (2X Set Up) Color Sort 0-20 (3X Set Up)
	Mode :	Return to the Mode Menu
18. 2 Color Flow	Function Set :	Run Speed 0-100 (1X Set Up) Flash Freq 0-100 (2X Set Up) Color Sort 0-20 (3X Set Up)
	Mode :	Return to the Mode Menu
19. Color Fade	Function Set :	Run Speed 0-100 (1X Set Up)
	Mode :	Return to the Mode Menu
20. Auto Run	Function Set :	Unit Times 0-20
	Mode :	Return to the Mode Menu
21. System Mode	Function Set :	Start Address 0-1000 (1X Set Up) Set Address YES(=Right UP-Button)-NO(=SETUP-Button) (2X Set Up) Tube Amount 0-1000 (3X Set Up) DMX Channel 0-509 (4X Set Up)
	Mode :	Return to the Mode Menu

In menu 17 and 18 you are also able to change the color of the chase or flow.
There are 20 available color varieties.

DMX Controlled

1. Turn the power switch on. The device will start test-mode. Press MODE button to enter mode setting.
2. Switch to System Mode, then press the Set Up-button. Enter the amount of tubes you are using.
3. For **DMX Controlled** you have to use **DMX Channel: 1-509**, then press the Set Up-button again.
4. The LCD now shows “Set Address YES”; press SETUP-Button (=NO) to keep your previous settings, or YES (=Right Up-Button) to store your choice.
5. Now your unit is DMX-Controlled. You will find all the pre-programmed scenes below.

Channel 1 - Colors

0-9	Blackout
10-19	Red
20-298	Green
30-39	Yellow
40-49	Blue
50-59	Magenta
60-69	Cyan
70-79	White
80-89	Color Change (Speed and Flash adjustable)
90-99	Slow Flow 1 (Speed and Flash adjustable)
100-109	Slow Flow 2 (Speed and Flash adjustable)
110-119	Roll Chase 1 (Speed and Flash adjustable)
120-129	Roll Chase 2 (Speed and Flash adjustable)
130-139	Multi Color (Speed and Flash adjustable)
140-149	Fast Flow 1 (Speed and Flash adjustable)
150-159	Fast Flow 2 (Speed and Flash adjustable)
160-169	2 Color Chase (Speed, Flash and Color Combination adjustable)
170-179	2 Color Flow (Speed, Flash and Color Combination adjustable)
180-189	Color Fade (Speed Adjustable)
190-255	Auto Run

Channel 2 – Setting of Speed, Flash or Color combinations

0-79	Speed
80-159	Flash
160-255	Color combinations, only available with 2 Color Chase and 2 Color Flow

Channel 3 – Adjustment 0-100% of Channel 2 (adjustment Speed, Flash or Color Chase or Color Flow)

0-255	Adjust the Speed, Flash or Color from 0-255 (0-100%).

The Next settings are only adjustable when CH1 = 160-169 or 170-179 are active.

2 Color Chase / 2 Color Flow

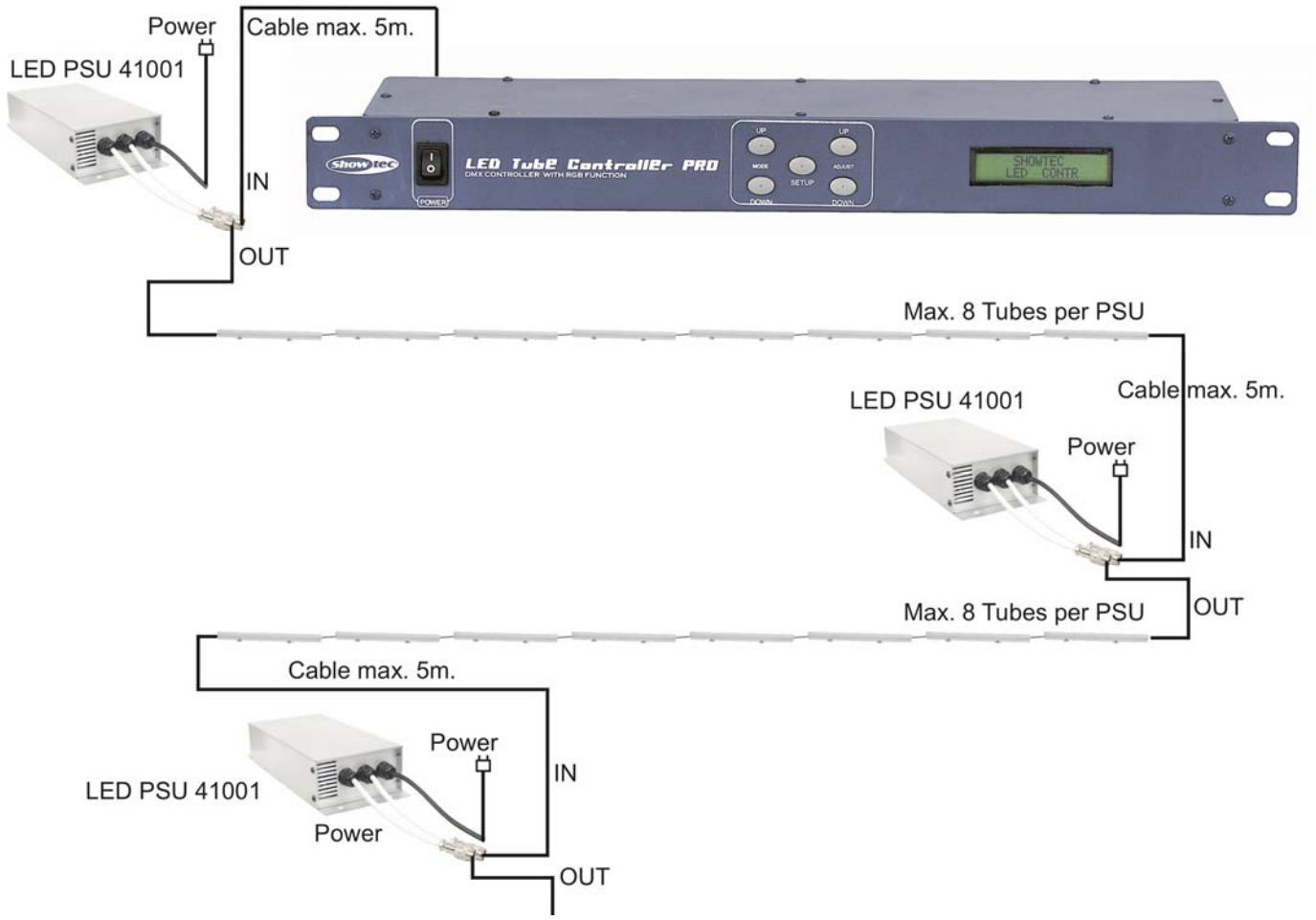
0-11	R + G
12-23	R + Y
24-35	R + B
36-47	R + P
48-59	R + C
60-71	R + W
72-83	G + Y
84-95	G + B
96-107	G + P
108-119	G + C
120-131	G + W
132-143	Y + B
144-155	Y + P
156-167	Y + C
168-179	Y + W
180-191	B + P
192-203	B + C
204-215	B + W
216-227	P + C
228-239	P + W
240-255	C + W

Channel 4 – Dimmer of RGB Mode
0-255 (0-100%) dimmer for RGB Mode

Channel 5 – RGB Mode
For RGB Mode the Channel has to be set to 255 (100%) to be active. Otherwise there will be no RGB Mode.

When you activate RGB Mode, the Channels are:
Channel 1: Red
Channel 2: Green
Channel 3: Blue
Channel 4: Dimmer 0-100%

Set Up Example



Maintenance

The Showtec 19” LED Tube Controller requires almost no maintenance. However, you should keep the unit clean. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents.
Keep connections clean. Disconnect electric power, and then wipe the DMX and audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Troubleshooting

Showtec LED Tube Controller
This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.
1. If the device does not operate properly, unplug the device.
2. Check power from the wall, all cables, the fuse, etc.
3. If all of the above appears to be O.K., plug the unit in again.
4. If nothing happens after 30 seconds, unplug the device.
5. Return the device to your Showtec dealer.

Product Specification

Model: Showtec 19” LED Tube Controller (41003)
Voltage : AC 230V-50Hz (CE)
Input Voltage: 9-12V / 500mA external adapter
Dimensions : 482,6 (**1HE**) x 101,7 x 46 mm (LxWxH)
Weight : 1,14 kg

Model: Showtec LED Tube (41000)
Dimensions incl. mountingplate: 1002 x 50 x 80 mm (LxWxH)
Dimensions excl. mountingplate: 1002 x 50 x 70 mm (LxWxH)
Weight : 1,12 kg

Model: Showtec LED Cove (41005)
Dimensions: 1000 x 40 x 45 mm (LxWxH)
Weight : 0,8 kg

Model: Showtec LED PSU (41001)
Dimensions: 320 x 140 x 70 mm (LxWxH)
Weight : 2,32 kg

Design and product specifications are subject to change without prior notice.

CE

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